

CLAIMS

What is claimed is:

1. An exhaust system component, comprising:
a conical shaped sidewall extending outward to a shoulder; and
a mat protection element extending from said shoulder, away from said
sidewall;
- 5 wherein said shoulder secures to an exhaust system component.
2. The exhaust system component of Claim 1, wherein a shoulder
diameter is greater than a mat protection element diameter.
3. The exhaust system component of Claim 1, wherein said shoulder
diameter is equivalent to said mat protection element diameter.
4. The exhaust system component of Claim 1, wherein said mat
protection element has a conical geometry extending inward from said shoulder.
5. The exhaust system component of Claim 1, wherein said mat
protection element has a conical geometry extending outward from said shoulder.
6. The exhaust system component of Claim 1, wherein said mat
protection element has a cylindrical geometry.
7. The exhaust system component of Claim 1, wherein said mat
protection element further comprises a protrusion.
8. The exhaust system component of Claim 7, wherein said
protrusion is selected from the group consisting of a rib a dimple, and combinations
comprising at least one of the foregoing protrusions.

9. The exhaust system component of Claim 7, wherein said protrusion is longitudinally disposed on said mat protection element.

10. A catalytic converter, comprising:
a catalyst substrate comprising a catalyst;
a shell concentrically disposed around said catalyst substrate;
a mat support material disposed between said catalyst substrate
5 and said shell, and concentrically around said catalyst substrate;
an endcone assembly comprising a conical shaped sidewall
extending outward to a shoulder and a mat protection element extending from
said shoulder, away from said sidewall, wherein said endcone assembly is
securedly attached to said shell at said shoulder.

11. The catalytic converter of Claim 10, wherein an end of
said mat protection element contacts at least an edge of said mat support
material.

12. The catalytic converter of Claim 10, wherein at least a
portion of said mat protection element penetrates at least a portion of said mat
support material.

13. The catalytic converter of Claim 10, wherein said mat
protection element further comprises at least two protrusions extending from
said mat protection element to said.

14. The catalytic converter of Claim 13, wherein said
protrusion is selected from the group consisting of a rib a dimple, and
combinations comprising at least one of the foregoing protrusions.

15. A method for manufacturing a catalytic converter, comprising:

concentrically disposing a catalyst substrate in a shell;

5 disposing concentrically a mat support material between said catalyst substrate and said shell, and around said catalyst substrate;

securing a shoulder of an endcone assembly to said shell, said endcone assembly comprising conical shaped sidewall extending outward to a shoulder and a mat protection element extending from said shoulder.

16. The method of Claim 15, further comprising disposing concentrically said mat protection element within said shell, and between said catalyst substrate and said shell.

17. The method of Claim 15, further comprising engaging said shell with at least two protrusions from said mat protection element.

18. The method of Claim 17, wherein said protrusion is selected from the group consisting of a rib a dimple, and combinations comprising at least one of the foregoing protrusions.

19. The method of Claim 15, further comprising contacting at least a leading edge of said mat support material with said mat protection element.

20. The method of Claim 19, further comprises penetrating at least a portion of said mat support material with at least a portion of said mat protection element.